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Anger and its Association with Substance Use Treatment Outcomes in a Sample of Adolescents

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Abstract

Anger is a common affective experience, yet it is relatively understudied in the substance use treatment literature. This study explored anger as a predictor of treatment outcomes in a large sample of adolescents. Data were extracted from the Drug Abuse Treatment Outcome Study for Adolescents (DATOS-A). An anger profile was created based on adolescents' pre-treatment responses to four items assessing history of temper outbursts and aggression. Individuals were classified as High Anger ($n = 506$) and Normal/Low Anger ($n = 2,326$) based on their pattern of responses to these items. High Anger at baseline was associated with several poor outcomes at the 12-month follow-up point, including a greater likelihood of experiencing delirium tremens, relapsing on drugs due to alcohol use, having difficulty controlling temper and behavior, and being arrested for attacks on persons.

Keywords

substance use; adolescence; treatment; anger

1. Introduction

There is some initial evidence that individuals with high levels of anger are more likely to engage in substance abuse (Grover & Thomas, 1993; Nichols, Mahadeo, Bryant, & Botvin, 2008). One study found that young adults (ages 17–22) with high levels of anger were more likely to drink alcohol, drink to intoxication, and have more alcohol-related negative consequences than those without high levels of anger (Leibsohn, Oetting, & Deffenbacher, 1994). Further, adult men that were identified as social drinkers with high levels of trait anger were found to be more likely to demonstrate aggression when they were intoxicated and had difficulty controlling their anger responses (Parrott & Gianicola, 2004, p. 856). These initial studies have demonstrated a link between anger and substance use; however, there are no studies that have examined anger in adolescence and its corresponding impact on substance use treatment outcomes.

While anger has been understudied in the substance use literature, there have been several studies that have examined the effect of anger on mental health treatment outcomes. Within treatment settings, there is emerging evidence that angry individuals are less likely to complete treatment (Eckhardt, Samper, & Murphy, 2008; Erwin & Heimberg, 2003; Murphy, Taft, & Eckhardt, 2007). For instance, patients being treated for social anxiety ($N=234$) were found to be more likely to drop out of treatment if they experienced frequent anger episodes (Erwin & Heimberg, 2003). Additionally, levels of anger among perpetrators of intimate partner violence have been associated with treatment attrition and increased arrest rates (Eckhardt, Samper, & Murphy, 2008). Men who reported either high or moderate levels of anger had higher treatment attrition and re-arrest rates than men with low levels of anger (41% vs. 71% completed treatment, respectively) (Eckhardt et al., 2008). Further, Murphy, Taft, and Eckhardt (2007) found that anger profiles (created by cluster analyses and that yielded Pathological Anger, Normal Anger, and Low Anger) predicted treatment outcomes for men who were violent against romantic partners. Participants with Pathological Anger had more instances of partner abuse, interpersonal dysfunction, distress, substance use, and lower treatment attendance (Murphy et al., 2007).

In comparison to other emotional states such as depression and anxiety, anger has been studied less extensively (DiGiuseppe, Tafrate, & Eckhardt, 1994). An assessment of anger is clinically valuable, as it is associated with a number of interpersonal problems, including violence and conflicts (Deffenbacher, Oetting, Lynch, & Morris, 1996; Norlander & Eckhardt, 2005; Wolf & Foshee, 2003). Anger was shown to predict verbal aggression in a sample of adolescents (Fives, Kong, Fuller, & DiGiuseppe, 2011). Many of the available studies that have investigated anger have used the State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988), which measures how anger is experienced and expressed. Components of anger identified by the STAXI were trait anger, state anger, anger control, and the outward and inward expression of anger (i.e., anger suppression). Several investigators have used this measure to create categorical variables of anger (Eckhardt et al., 2008; Murphy et al., 2007).

To our knowledge, there have been no studies that have examined anger and its relationship with treatment outcomes in adolescent substance users. This study examined the relationship between levels of anger and treatment outcomes in a large sample of adolescents that entered treatment for a substance use disorder from the Drug Abuse Treatment Outcome Study for Adolescents (DATOS-A; United States Department of Health and Human Services, 1993–1995; see Hser et al., 2001). We hypothesized that adolescents identified as experiencing high levels of anger would: (1) have a more severe constellation of problems at treatment entry (e.g., substance use severity, psychiatric severity); (2) be more likely to drop out of treatment; and (3) display worse long-term treatment outcomes (e.g., greater likelihood of relapse following treatment) in comparison to those with lower levels of anger.

2. Method

2.1 Procedure

This study used data from the Drug Abuse Treatment Outcome Study for Adolescents (DATOS-A) for secondary analyses, which was sponsored by the National Institute on Drug

Abuse (NIDA). DATOS-A was designed to evaluate the effectiveness of various substance use treatments (short-term inpatient, residential, and outpatient drug-free) among adolescents from 1993 through 1995. The DATOS-A data set included assessments at multiple time points; for the current study, we examined data from the intake interview (i.e., pre-treatment) and at the 12-month follow-up post-treatment. All interviews were completed in-person by trained interviewers that were not affiliated with the treatment clinics (Kristiansen & Hubbard, 2001). Informed assent was obtained from all participants under age 18, and informed consent was obtained from legal guardians and for the participants that were 18 years old or older.

2.2 Participants

This prospective, multisite study included 3,382 adolescents that were enrolled in substance use treatment and participated in the intake interview, 1,785 of which also completed the 12-month follow-up interview. For a treatment program to be included in the multisite study, two criteria were required: (1) adolescents must have been treated separately from an adult population, and (2) at least five adolescents must have been admitted per month. In total, 37 treatment sites participated in data collection. Kristiansen and Hubbard (2001) extensively describe the methodology and sample characteristics of the DATOS-A study. Overall, the sample was predominantly male (74%) with a mean age between 15 and 16 years old. Twenty-four percent of the sample identified as African American and 21% as Hispanic. The majority of the participants had not had previous treatment experience and approximately half of the sample was involved in the criminal justice system (DATOS-A; United States Department of Health and Human Services). A prior study reported no significant differences between those that completed the 12-month follow-up interview versus those that did not with respect to age, substance use, or school enrollment, however there were some differences with respect to gender and ethnicity (Grella, Hser, Joshi, & Rounds-Bryant, 2001). For instance, the subsample that completed the 12-month follow-up interview contained a higher proportion of females and a lower proportion of ethnic minorities (e.g., Hispanics, African-Americans) than those who did not complete the follow-up.

2.3 Measures

The DATOS-A dataset contains 9,473 variables across multiple time points. For the current study, we included the following items from the pre-treatment interview data: Treatment modality, gender, race, age, current school enrollment, drug of choice, criminal justice status, ever overdosed on drugs, ever attempted suicide, Attention-Deficit/Hyperactivity Disorder, Conduct Disorder, Depressive Disorder, Alcohol Dependence, Cocaine Dependence, and Marijuana Dependence. The following items were included from the 12-month follow-up data: Treatment completion, number of days drunk during past year, drunk several days in a row, overdosed on drugs, trouble controlling temper/behavior, suicide attempt, had mental problems because of drugs and/or alcohol, been in jail/detention/prison, been arrested for attacks on persons, and been arrested for use/possession of drugs. We also used the variables that assessed drug use (cocaine, marijuana, heroin) since treatment completion.

The literature on anger has made a distinction between anger (emotion), hostility (cognitive bias), irritability (noncognitive, lowered threshold for anger), and aggression (behavior) (DiGiuseppe & Tafrate, 2007). Because the DATOS-A data did not include a specific, validated measure assessing anger, we chose to evaluate levels of anger by creating an ‘anger profile’, which consisted of participant responses to several items generally related to anger that were assessed during the intake interview. The items included in the anger profile were: (1) “Ever have trouble controlling your temper”, (2) “Ever involved in aggravated assault”, (3) “Last time had temper outbursts”, and (4) “Distressed by temper outbursts”. Participants were classified as having ‘High Anger’ if they responded “yes” to items 1 and 2, if they had temper outbursts within the month before admission (item #3), and if they had any amount of distress as a result of their temper outbursts, which included “a little bit”, “moderately”, “quite a bit”, and “extremely” (item #4). The two items that assessed “temper outbursts” and “trouble controlling your temper” closely resemble the construct of anger. We included the item “ever involved in aggravated assault” because anger often precedes aggression. Finally, we included the item “distressed by temper outbursts” because it indicated a higher level of consequences and severity. Because of the limited items addressing anger in the dataset, we only looked at a ‘High Anger’ group in comparison to the rest of the sample, and were not able to distinguish between high, moderate, and low levels of anger.

2.4 Data Analyses

First, demographic and other characteristics at baseline (e.g., substance use severity, mental health, legal status, school enrollment, etc.) were compared between those meeting our criteria for ‘High Anger’ and the rest of the sample (i.e., the Normal/Low Anger group). The anger profile was also compared to depression and Conduct Disorder to examine levels of overlap, in order to assess validity of the profile (i.e., if it was essentially the same construct or separate). Because irritability is a symptom of depression and aggression is a symptom of Conduct Disorder, it was important to demonstrate that the anger profile was a similar yet separate classification. Next, a chi-square test was used to examine if there were significant differences between the High Anger and Normal/Low Anger samples on rates of treatment completion. Chi-square tests were also used to examine the association between the anger profile and relevant treatment outcomes. Finally, a chi-square test was performed to see if there were differences in research attrition at 12-month follow-up according to the anger profile. Because of the use of multiple comparisons, we set the level of significance at .01 rather than .05 in the chi-square analyses for a more conservative interpretation of results.

3. Results

3.1 Participants

There were 3,382 participants who completed the intake interview and 1,785 that completed the 12-month follow-up. At baseline, 506 adolescents (15% of the sample) were classified as High Anger and 2,326 adolescents (68.8% of the sample) as Normal/Low Anger. There were 550 participants at baseline (16.3% of the sample) that did not answer all four of the anger items and were not included in the analyses. The 12-month follow-up rate for the completion of the research interview between the High Anger group and the rest of the sample was not statistically significant, $\chi^2(4, N = 3,371) = 5.30, p = .258$. Of the 506 adolescents identified

in the High Anger group at baseline, 278 of them completed the 12-month follow-up (54.9%). There were 1,219 adolescents from the Normal/Low Anger group that completed the 12-month follow-up (52.4%).

3.2 Anger and Pre-Treatment Variables

Table 1 displays demographic and relevant treatment variables by anger classification (High Anger versus Normal/Low Anger) at baseline. There were no significant demographic differences regarding sex, age, or race. There were, however, significant differences regarding the treatment relevant variables as we hypothesized. The High Anger group was more likely to be in residential treatment ($\chi^2(2, n = 2,832) = 13.69, p = .001$), have difficulties with the criminal justice system ($\chi^2(4, n = 2,825) = 15.64, p = .004$), have overdosed on drugs ($\chi^2(1, n = 2,823) = 12.93, p < .001$), have attempted suicide ($\chi^2(1, n = 2,820) = 8.15, p = .003$), and meet diagnostic criteria for difficulties with alcohol ($\chi^2(4, n = 2,832) = 19.94, p = .001$) and marijuana ($\chi^2(4, n = 2,832) = 17.54, p = .002$). The High Anger group was also more likely to have a co-occurring psychiatric disorder (Attention-Deficit/Hyperactivity Disorder, Conduct Disorder, and Depressive Disorder). Figure 1 depicts the overlap between the anger profile and a Depressive Disorder, as well as the overlap between the anger profile and Conduct Disorder. The bar graphs demonstrate that while there is some overlap with the psychiatric diagnoses, the anger profile is sufficiently distinct to be considered as a separate construct.

3.3 Anger, Treatment Completion, and Substance Use at Follow-Up

A chi-square analysis indicated that there were no differences between the High Anger and Not Higher Anger groups in treatment completion at the 12-month follow-up point. Results of chi-square analyses to obtain relative risk ratios on key treatment outcome measures are presented in Table 2. Results indicated that participants identified as High Anger were more likely to have poorer long-term treatment outcomes in several domains. For instance, those classified as High Anger at pre-treatment were more likely to report at the 12-month follow-up relapse on drugs due to alcohol use ($\chi^2(1, n = 1,025) = 7.89, p = .004$) and having experienced Delirium Tremens ($\chi^2(1, n = 1,026) = 7.67, p = .007$). Also, the High Anger group was more likely to have been arrested for attacks on persons ($\chi^2(1, n = 1,490) = 8.94, p = .004$) and have had trouble controlling their temper ($\chi^2(1, n = 1,496) = 26.68, p < .001$). There were no significant differences according to the anger profile for other drug use at the 12-month follow-up (e.g., marijuana use, cocaine use, and heroin use). A separate chi-square analysis was used to examine the anger profile on three levels of treatment satisfaction ("not at all", "somewhat", and "very satisfied"). The result indicated that the High Anger participants were less likely to have been satisfied with treatment compared to those not classified as High Anger, $\chi^2(2, N = 1,482) = 13.42, p = .001$.

4. Discussion

Although research has indicated a relationship between anger and substance use, the relationship between anger and adolescent substance use treatment outcomes is relatively unknown. This study explored the association between levels of anger at baseline and treatment outcomes among 2,832 adolescents enrolled in a substance use treatment program

in the United States from the DATOS-A study (1,785 retained for 12-month follow-up). Adolescents classified as having High Anger were found to have a more severe constellation of substance use and psychiatric distress at pre-treatment and several worse treatment outcomes at 12-month follow-up in comparison to the Normal/Low Anger group.

The current study builds upon previous research by exploring how anger is associated with treatment outcomes for adolescent substance users. Prior research has indicated that anger may be a risk factor, as well as a consequence of, substance use during adolescence. Eftekhari, Turner, and Larimer (2004) found that anger was associated with alcohol and marijuana use, as well as a number of negative substance use consequences in a sample of 270 incarcerated adolescents. Alcohol use has also been found to be predictive of increased anger during later adolescence. Weiner, Pentz, Turner, and Dwyer (2001) found that use of alcohol in middle-schoolers was related to increased odds ratios of anger problems later in high school (e.g., saying or doing nasty things, self-reported hotheadedness, and high anger on a composite scale). However, no studies have looked at anger during adolescence and substance use treatment outcomes.

Our results indicated that the adolescents in the High Anger group had a greater severity of substance use and psychiatric diagnoses at baseline, as we hypothesized. They were also more likely to be involved in the criminal justice system and more likely to have a higher level of clinical care (e.g., long-term, residential treatment). This is consistent with previous research that suggested angry individuals might be more likely to use substances (Grover & Thomas, 1993; Leibsohn et al., 1994; Nichols et al., 2008). Those classified as having High Anger in this study were also more likely to be diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD), Conduct Disorder, and Depressive Disorder. This may be due to the overlap of anger with irritability (a symptom of a Depressive Disorder) and aggression (a symptom of Conduct Disorder). Research has suggested that individuals diagnosed with ADHD may be more susceptible to anger and aggression, as several studies have reported individuals with ADHD possessed higher levels of state and trait anger, as well as aggression (Hinshaw, Buhrmester, & Heller, 1989; Ramirez et al., 1997; Richards, Deffenbacher, Rosén, Barkley, & Rodricks, 2006). Other research has indicated anger often co-occurs in depression and Conduct Disorder. In one study by Renouf and Harter (1990), 80 percent of adolescents reported that they experienced depression as both a mixture of sadness and anger. Other studies have found anger to be a component of Conduct Disorder and Oppositional Defiant Disorder (Drabick & Gadow, 2012; Sanders, Dadds, Johnston, & Cash, 1992). However, while there was some overlap in our sample with psychiatric disorders, the anger profile did not overlap completely with ADHD, Depressive Disorder, or Conduct Disorder. It should be noted that aggravated assault was included in the anger profile for this study.

In terms of treatment retention, there were no differences between the High Anger group and Normal/Low Anger group. This is not consistent with the adult literature, in which anger has been found to predict increased treatment attrition for cognitive behavioral and court-mandated therapy (Eckhardt, Samper, & Murphy, 2008; Erwin & Heimberg, 2003; Murphy, Taft, & Eckhardt, 2007).

Finally, adolescents classified as having High Anger at baseline were found to have worse treatment outcomes regarding interpersonal aggression, temper outbursts, relapse to drugs due to alcohol use, and delirium tremens at the 12-month follow-up point. To our knowledge, this is the first study to present evidence of an association between anger and long-term treatment outcomes among adolescents.

4.1 Clinical Implications

These findings may be useful for practitioners by demonstrating the potential value of including an assessment of anger in substance use treatment settings that serve adolescents. Anger is often not assessed formally in clinical settings, and because we found that it is associated with both immediate clinical presentations as well as some 12-month outcomes, it warrants inclusion in clinical assessment. Also, because we found that adolescents in the High Anger group were less likely to be satisfied with treatment, perhaps additional tailoring of treatment to target anger and efforts toward engagement may be of benefit. Adolescents with high levels of anger may benefit from anger management techniques in addition to standard substance use treatment with the hopes of improving outcomes. The finding that past anger was associated with future anger speaks to the importance of managing anger.

4.2 Limitations

This study has several limitations. First, the anger profile was created for the purposes of this study and had not previously been validated. A more thorough assessment of anger, perhaps using the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), would have enhanced the validity and reliability of the anger variable, and offered a greater evaluation of the relationship between anger and substance use treatment outcomes. Anger is a complex construct and the DATOS-A dataset included a limited number of items that addressed anger experiences, thereby limiting our evaluation of the construct. Second, many of the outcomes were dichotomous, self-report variables. This limited the extent of the statistical analyses to explore the hypotheses. Third, there is potential that the statistically significant findings were spurious due to the fact that the dataset contains thousands of variables and we only examined a subset of the variables. Fourth, there was a significant amount of drop-out in the research study from the baseline assessments to the 12-month follow-up. Because our analyses were restricted to the available data, they may not be fully representative of the original intake sample. Finally, the data from DATOS-A was collected between 1993 through 1995, potentially limiting the generalizability to more contemporary treatment settings. However, despite the age of the data, it remains one of the largest collections of longitudinal data from adolescents enrolled in substance use treatment programs.

4.3 Future Research

Future studies should evaluate the effect of both trait and state anger on substance use treatment outcomes. Such studies may be able to examine which aspects of anger are the most detrimental to substance use treatment outcomes. Based on findings from the current study, it may be important to address levels of anger among adolescents entering substance use treatment, in the hopes of improving treatment engagement and treatment efficacy.

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Figure 1.
Anger profile and psychiatric diagnoses.

Table 1Demographic and relevant treatment variables. $N = 2,832$

	High Anger $n = 506$	Normal/Low Anger $n = 2,326$	χ^2 (df)
	n (%)	n (%)	
Female	143 (28.3)	628 (27)	.33 (2)
Race / Ethnicity			5.33 (3)
Black or African American	104 (20.6)	539 (23.2)	
White or Caucasian	265 (52.4)	1228 (52.8)	
Hispanic	121 (23.9)	464 (19.9)	
Other	16 (3.2)	95 (4.1)	
Age			10.73 (6)
12 or younger	4 (.8)	24 (1)	
13	18 (3.6)	109 (4.7)	
14	75 (14.8)	310 (13.3)	
15	132 (26.1)	502 (21.6)	
16	139 (27.5)	623 (26.8)	
17	106 (20.9)	548 (23.6)	
18 or older	32 (6.3)	210 (9)	
Treatment Modality			13.69 (2) ***
Residential	282 (55.7)	1105 (47.5)	
Short-Term Inpatient	139 (27.5)	685 (29.4)	
Outpatient Drug Free	85 (16.8)	536 (23)	
Currently in School (Yes)	345 (68.2)	1543 (66.4)	.60 (1)
Drug of Choice			17.96 (13)
None	20 (4)	129 (5.6)	
Alcohol	52 (10.4)	226 (9.8)	
Marijuana	307 (61.2)	1506 (65.1)	
Hallucinogens	43 (8.6)	154 (6.7)	
Cocaine	25 (5)	109 (4.7)	
Crack	14 (2.8)	44 (1.9)	
Heroin	5 (1)	40 (1.7)	
Heroin/Cocaine Together	0	6 (.3)	
Narcotics/Opiates	0	1 (<1)	
Downers/Depressants	1 (.2)	4 (.2)	
Amphetamines	4 (.8)	13 (.6)	
Methamphetamine	27 (5.4)	68 (2.9)	
Inhalants	3 (.6)	9 (.4)	
Any Other drugs	1 (.2)	6 (.3)	
Criminal Justice Status			15.64 (4) **
No Legal Status	184 (36.4)	1042 (44.9)	

	High Anger <i>n</i> = 506	Normal/Low Anger <i>n</i> = 2,326	χ^2 (df)
	<i>n</i> (%)	<i>n</i> (%)	
In Jail/Detention	81 (16)	282 (12.2)	
Probation	183 (36.2)	729 (31.4)	
Parole	9 (1.8)	30 (1.3)	
Case Pending	48 (9.5)	237 (10.2)	
Alcohol Dependence			19.94 (4) ***
No Abuse/Dependence	267 (52.8)	1467 (63.1)	
Abuse Only	65 (12.8)	241 (10.4)	
Mild Dependence	15 (3)	70 (3)	
Moderate Dependence	114 (22.5)	398 (17.1)	
Sever Dependence	45 (8.9)	150 (6.4)	
Cocaine Dependence			11.48 (4)
No Abuse/Dependence	407 (80.4)	1983 (85.3)	
Abuse Only	15 (3)	47 (2)	
Mild Dependence	4 (.8)	7 (.3)	
Moderate Dependence	48 (9.5)	147 (6.3)	
Severe Dependence	32 (6.3)	142 (6.1)	
Marijuana Dependence			17.54 (4) **
No Abuse/Dependence	128 (25.3)	755 (32.5)	
Abuse Only	39 (7.7)	191 (8.2)	
Mild Dependence	2 (.4)	23 (1)	
Moderate Dependence	232 (45.8)	1006 (43.3)	
Severe Dependence	105 (20.8)	351 (15.1)	
Heroin Dependence			8.11 (4)
No Abuse/Dependence	482 (95.8)	2243 (96.6)	
Abuse Only	2 (.4)	10 (.4)	
Mild Dependence	1 (.2)	4 (.2)	
Moderate Dependence	11 (2.2)	19 (.8)	
Severe Dependence	7 (1.4)	46 (2)	
Treatment Your Own Idea	128 (25.3)	612 (26.4)	.229 (1)
Ever Overdosed on Drugs	94 (18.6)	291 (12.6)	12.93 (1) ***
Ever Attempt Suicide	131 (26)	469 (20.3)	8.147 (1) **
Diagnosis of ADHD	82 (19)	230 (11.4)	18.27 (1) ***
Diagnosis of Conduct Disorder	324 (75.2)	1107 (55.1)	58.95 (1) ***
Diagnosis of Depressive Disorder	62 (14.4)	168 (8.4)	15.08 (1) ***

Note.

**
 $p < .01$,

 $< .001$.

Due to multiple comparisons, significant findings were only reported at the $p < .01$ level.

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Table 2

Substance use treatment outcomes at 12-month follow-up. $N = 1,785$.

	High Anger $n = 278$	Normal/Low Anger $n = 1,219$	χ^2 (df)	Relative Risk High Anger
	n (%)	n (%)		
Completed Treatment	148 (53.6%)	730 (60.1%)	3.88 (1)	.807
Cocaine Use Post-Treatment	62 (22.3%)	228 (18.8%)	1.81 (1)	1.191
Marijuana Use Post-Treatment	197 (70.9%)	809 (66.4%)	2.077 (1)	1.187
Heroin Use Post-Treatment	13 (4.7%)	53 (4.3%)	.06 (1)	1.064
Relapse of Drugs due to Alcohol Post-Treatment	65 (33.9%)	200 (24%)	7.89 (1) **	1.468
Drunk Several Days in a Row	42 (29.2%)	140 (22%)	3.40 (1)	1.355
Experienced Delirium Tremens (DTs)	17 (8.9%)	34 (4.1%)	7.67 (1) **	1.868
Overdosed on Drugs	19 (9.3%)	50 (5.9%)	3.11	1.461
Trouble Controlling Temper/Behavior	131 (47.1%)	376 (30.9%)	26.68 ***	1.738
Suicide Attempt	11 (4%)	47 (3.9%)	.01 (1)	1.027
Had Mental Problems because of Drugs or Alcohol	36 (13%)	115 (9.4%)	3.12	1.329
Been in Jail/Detention/Prison	112 (40.3%)	407 (33.6%)	4.40 (1)	1.260
Arrested: Attacks on Persons	21 (7.6%)	43 (3.5%)	8.94 (1) **	1.828
Arrested: Use/Possession of Drugs	42 (15.1%)	154 (12.7%)	1.16 (1)	1.177

Note. Dichotomous variables that were either answered as “yes” at 12-month follow-up at post-treatment.

**
 $p < .01$,

 $< .001$.

Due to multiple comparisons, significant findings were only reported at the $p < .01$ level.